Appl. No. 10/507,342

Amdt. Dated September 7, 2006

Reply to Office Action of August 8, 2006

CLAIMS:

1. (Original) An electronic device provided with an active element having a first and a second

electrode, which are separated from each other by an active layer containing a semiconductive or

electroluminescent organic material, characterized in that the organic material of an active layer is a

polymer comprising conjugated conjugation units which are separated from each other by non-

conjugated intermediate units B in such a manner that the conjugation of the first and the second

conjugation unit A_1 , A_2 is interrupted in an intermediate unit B_1 .

2. (Original) An electronic device as claimed in claim 1, characterized in that the polymer is

polymer network comprising a first and a second main chain which are interconnected via side

chains, a side chain containing a B₁-A₁-B₂ structure, with B₁, B₂ being intermediate units and A₁

being a conjugation unit.

3. (Original) An electronic device as claimed in claim 1, characterized in that the polymer is a

copolymer comprising a main chain, the intermediate units B and the conjugation units A being

present in the main chain as alternating units ...-A₁-B₁-A₂-B₂-....

4. (Original) An electronic device as claimed in claim 1, characterized in that the polymer

comprises a main chain with side chains, a side chain containing a B₁-A₁-B₂- structure, wherein B₁,

 B_2 are intermediate units and A_1 is a conjugation unit.

5. (Original) An electronic device as claimed in claim 1, characterized in that the intermediate unit

B₁ comprises a mesogenic group.

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6. (Currently amended) An electronic device as claimed in <u>claim 1</u> any one of the preceding elaims, characterized in that the conjugation unit is a unit of formula Y_n , wherein $2 \le n \le 8$ and Y is selected from the group composed of

$$X = X$$

$$X =$$

wherein

Ar is an aromatic ring system with 4 to 6 carbon atoms that may be substituted with a substituent selected from the group composed of an unbranched C_1 - C_{20} -alkyl-, C_3 - C_{20} -alkoxy-, C_1 - C_{20} -alkylsulphate-, a branched C_3 - C_{20} -alkyl-, phenyl or benzyl group, and that may comprise up to 4 heteroatoms selected from the group composed of oxygen, sulfur and nitrogen in the aromatic ring system, and

 R_2 and R''_2 are selected from the group composed of a hydrogen atom and a C_1 - C_{20} alkyl- and a C_4 - C_{20} -aryl group, which groups may comprise substituents.

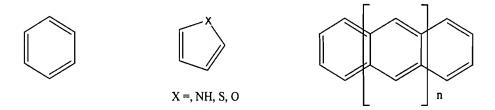
7. (Original) An electronic device as claimed in claim 1, characterized in that a second active element is present, which contains a first and a second electrode which are mutually separated by the active layer, and in that the active layer has a relief structure, so that the active layer between the first and the second active element is removed.

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8. (Currently amended) An electronic device as claimed in claim 1 or 7, characterized in that the active element is a transistor wherein a third electrode is present which is separated from the active layer by a dielectric, and wherein the active layer comprises an intrinsic, undoped semiconductive material.

9. (Cancelled)

10. (Original) A monomer having a B_1 - A_1 - B_2 structure, wherein A_1 is a conjugated unit of formula Y_n , wherein $2 \le n \le 8$ and Y is selected from the group composed of



$$Ar$$
 R_2 R''_2

wherein

Ar is an aromatic ring system with 4 to 6 carbon atoms that may be substituted with a substituent selected from the group composed of an unbranched C_1 - C_{20} -alkyl-, C_3 - C_{20} -alkoxy-, C_1 - C_{20} -alkyl sulphate-, a branched C_3 - C_{20} -alkyl-, phenyl- or benzyl group, and that may contain up to 4 heteroatoms selected from the group composed of oxygen, sulfur and nitrogen in the aromatic ring system, and

 R_2 and R''_2 are selected from the group composed of a hydrogen atom and a C_1 - C_{20} -alkyl- and a C_4 - C_{20} -aryl group, which groups may comprise substituents, and wherein B_1 , B_2 are non-conjugated groups.

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11. (Cancelled)

12. (Currently Amended) A polymer <u>comprising</u>: that can be obtained by means of the method as claimed in claim 9.

conjugated conjugation units A and non-conjugated intermediate units B; and
an intermediate unit B1 mutually separating a first and a second conjugation unit A1,
A2 in such a manner that the conjugation of the first and the second conjugation unit A1, A2
is interrupted in the intermediate unit B1, wherein the polymer is prepared from a monomer
having a B1-A1-B2 structure, and wherein at least one of the groups B1, B2 comprises a
reactive end group.